Introduction

The future vision of Saudi Arabia is to be a global investment powerhouse. As Saudi Arabia holds strong investment capabilities, the country is straightening its economy, as well as increasing revenues in several ways. These include developing and upgrading most of the country’s tourist attractions, cities and neighborhoods. The Taif municipality and Al-Masaar Company wanted to provide healthy, sustainable and lively community by developing and upgrading one neighborhood in the city.

Problem Statement

Al-Masaar Company wanted to be able to visualize the whole neighborhood, as well as obtain a complete picture of the services accessibility of the residents to come up with scenarios.

Proposed Solution

The solution of the project problem contains two parts:

- Part 1: 3D visualization
- Part 2: Analyzing services accessibility
- New Urbanism
- Geodesign
- Designing two scenarios

Solution 1

3D view of the study area

3D view of the buildings’ facades

Solution 2

Analyzing services accessibility

1. Groceries
2. Schools
3. Parks
4. Mosques
5. Malls
6. Health

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Current Facilities</th>
<th>Needed Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groceries</td>
<td>10</td>
<td>2 to 3</td>
</tr>
<tr>
<td>Schools</td>
<td>12</td>
<td>1 to 2</td>
</tr>
<tr>
<td>Parks</td>
<td>3</td>
<td>2 to 5</td>
</tr>
<tr>
<td>Mosques</td>
<td>8</td>
<td>2 to 4</td>
</tr>
<tr>
<td>Malls</td>
<td>5</td>
<td>2 to 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scenario A</th>
<th>Accessibility</th>
<th>Business Opportunities</th>
<th>Mixed Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Both scenarios provide services within a walkable distance</td>
<td>Less commercial areas; business park was provided in the study area</td>
<td>A mix of residential, commercial, entertainment, and religious areas on the site; Public sports facility; A mix of residential, commercial, historical, religious, and green areas on the site</td>
</tr>
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<td>Scenario B</td>
<td>Both scenarios contain different services close to each other</td>
<td>More commercial areas; A historical area was provided the study area</td>
<td></td>
</tr>
</tbody>
</table>

Designing two scenarios

Scenario A

- Both scenarios provide services within a walkable distance
- Less commercial areas; business park was provided in the study area
- A mix of residential, commercial, entertainment, and religious areas on the site; Public sports facility

Scenario B

- Both scenarios contain different services close to each other
- More commercial areas
- A historical area was provided the study area
- A mix of residential, commercial, historical, religious, and green areas on the site